

Chapter 4 Review

Student Text Pages

230 to 231

Suggested Timing

80 min

Technology Tools

- Computer Algebra System
- TI-89 calculators
- calculators

Related Resources

BLM 4.CR.1 Chapter 4 Review

BLM A14 Self-Assessment
Recording Sheet

BLM A15 Self-Assessment
Checklist

Ongoing Assessment

- Upon completing the Chapter Review, students can also answer questions such as the following:
 - *Did you work by yourself or with others?*
 - *What questions did you find easy? Difficult? Why?*
 - *How often did you have to check the related teach example in the text to help you with the questions? For which questions?*
- You may wish to use **BLM A14 Self-Assessment Recording Sheet** and/or **BLM A15 Self-Assessment Checklist** to assist you in assessing your students.

Using the Chapter Review

Each question reviews different skills and concepts. Have students work independently to complete the Chapter Review, then with a partner to compare solutions. Alternatively, assign the Chapter Review for reinforcing skills and concepts in preparation for the Practice Test. Provide an opportunity for the students to discuss any questions containing strategies or questions with features they find difficult. You may wish to assign **BLM 4.CR.1 Chapter Review** to assist students with their review of the chapter.

Place vocabulary on a word wall, create a crossword puzzle, to review terminology in this chapter. After they complete the Chapter Review, encourage students to make a list of questions that caused them difficulty, and include the related sections and teaching examples. They can use this to focus their studying for a final test on the chapter's content.

Chapter 4 Practice Test

Student Text Pages

232 to 233

Suggested Timing

60–80 min

Tools

- grid paper

Technology Tools

- Computer Algebra System
- TI-89 calculator
- *The Geometer's Sketchpad*®
- computers

Related Resources

BLM 4.PT.1 Chapter 4 Practice Test

BLM 4.CT.1 Chapter 4 Test

BLM 4.P.1 Performance Task

BLM A8 Application General Scoring Rubric

BLM T4 *The Geometer's Sketchpad*® 3

BLM T5 *The Geometer's Sketchpad*® 4

BLM G10 Grid Paper

Summative Assessment

- After students complete **BLM 4.PT.1 Chapter 4 Practice Test**, you may wish to use **BLM 4.CT.1 Chapter 4 Test** as a summative assessment.
- The end of the chapter is a good place for a performance task. **BLM 4.P.1 Performance Task** targets process expectations to a higher degree, particularly problem solving where students must develop, select, apply, and compare a variety of problem-solving strategies. You may wish to use **BLM A8 Application General Scoring Rubric** to assist you in assessing your students for the Performance Task.

Accommodations

Gifted and Enrichment—Challenge students to prepare an extra Chapter Test for their classmates.

Memory—Encourage students to solve each of the equations using more than one method. For example, by inspection, by showing steps using pencil and paper, and by using a CAS.

Study Guide

Use the following study guide to direct students who have difficulty with specific questions to appropriate examples to review.

Question	Section(s)	Refer to
1	4.1	Example 3 (page 190)
2	4.1	Example 3 (page 190)
3	4.4	Example 1 (page 212)
4	4.5	Example 1 (page 221)
5a)	4.1	Example 1 (page 187)
5b)	4.1	Example 2 (page 189)
5c)	4.1	Example 3 (page 190)
5d)	4.2	Example 1 (page 197)
5e), f)	4.2	Example 2 (page 198)
6a)	4.3	Example 1 (page 205)
6b)	4.3	Example 2 (page 206)
7a)	4.4	Example 1 (page 212)
7b)	4.4	Example 2 (page 213)
7c)	4.4	Example 1c) (page 212)
8	4.5	Example 1 (page 221)
9	4.3	Example 2b) (page 207)
10	4.5	Example 2 (page 222)

Using the Practice Test

This Practice Test may be assigned as an in-class or take-home assignment. If it is used as an assessment, use the following guidelines to help you evaluate the students.

Can students do each of the following?

- solve simple equations
- solve equations involving several steps, including application of the distributive property
- solve equations involving fractions
- check solutions to equations
- rearrange formulas
- apply formulas to solve problems
- build algebraic equation models
- apply equation models to solve problems, and compare solutions to alternate solution methods

Chapter 4 Problem Wrap-Up

Student Text Page

233

Suggested Timing

30 min

Related Resources

BLM 4.CP.1 Chapter 4 Problem
Wrap-Up Rubric

Technology Tools

- calculators
- Computer Algebra System
- TI-89 calculators

Summative Assessment

- Use BLM 4.CP.1 Chapter 4 Problem Wrap-Up Rubric to assess student achievement.

Using the Chapter Problem

- The Chapter Problem can be done individually. Some students may not understand the concept of the minimum rating required to ensure a second season. Allow students to discuss the problem in groups before they begin.
- This Chapter Problem assumes that calculators with CAS will not be used. However, some students will benefit from the availability of a simple calculator for numerical computations.
- You may wish to add a second part to the problem after students have completed the Chapter Problem. Have the students solve the problem with CAS and compare the solutions. Since CAS calculators can “step through” a solution, students could also assess the completeness and effectiveness of their pencil and paper solutions.

Level 3 Sample Response

Yes, I think that the show was successful enough to earn a second season. Both the adults and the girls have ratings greater than 8 according to the question with the girls rating being much greater than 8.1. With two groups representing 70% of the vote being above 8, I think the average will be above 8.

- b) Suppose the average rating for girls was x . Solving for x ,

$$8 = \frac{5x + 3(7.4) + 2(8.1)}{10}$$

Multiply both sides by 10 and simplify.

$$80 = 5x + 22.2 + 16.2$$

$$80 - 22.2 - 16.2 = 5x$$

$$41.6 = 5x$$

$$\frac{41.6}{5} = x$$

$$x = 8.32$$

A girls' average rating of 8.32 would be the minimum required for success.

Level 3 Notes

Look for the following:

- Clear justification for whether there will be a second season (can be negative if justified)
- Clear solution to the equation with possibly minor errors
- Solution has a strategy for clearing fractions from the equation
- Appropriate concluding sentence

What Distinguishes Level 2

At this level, look for the following:

- Statement that there will be a second season but with little or no justification
- Student substitute values into the formula but with errors
- Equation solution has some logic but contains significant errors
- Solution may not include a correct method for clearing fractions
- Concluding sentence may be missing

What Distinguishes Level 4

At this level, look for the following:

- Clear, detailed justification for whether there will be a second season (can be negative if justified). There may be a statement that there is no definitive way to decide this question without solving the equation in the later part of the question.
- Possible justification of both points of view for the first question
- Equation solution is efficient with detailed justification and no errors
- May show a formal check of the solution to the equation
- Conclusion is clearly stated with relationship to equation solving process